

Customer No.: 31561
Application No.: 10/604,613
Docket No.: 11039-US-PA

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-12 (withdrawn).

13. (currently amended) A multi-level SONOS memory cell, comprising:

a substrate, comprising:

a substrate layer;

an insulation layer, disposed on the substrate layer;

a silicon stripe, disposed on the insulation layer;

a first ~~two discrete~~ control ~~gates~~ gate and a second control gate disposed respectively and separately on sidewalls of the silicon stripe;

source/drain regions, configured in the silicon stripe beside both sides of the first control gate and the second ~~two discrete~~ control ~~gates~~ gate; and

~~two~~ a silicon oxide/silicon nitride/silicon oxide composite ~~layers~~ layer, disposed between the first ~~two discrete~~ control ~~gates~~ gate and the silicon stripe, and between the second control gate and the silicon stripe respectively.

14. (original) The memory cell of claim 13, wherein the substrate comprises a silicon-on-insulator substrate.

15. (currently amended) A multi-level memory cell, comprising:

a substrate;

an insulation layer, disposed on the substrate;

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a semiconductive stripe, disposed on the insulation layer;
a first ~~two-discrete~~ control ~~gates~~ gate and a second control gate disposed respectively and separately on sidewalls of the semiconductive stripe;
source/drain regions, configured in the semiconductive stripe beside both sides of the ~~two-control-gates~~ first conductive gate and the second conductive gate;
~~two~~ a charge trapping layer ~~layers~~, disposed between the ~~two-discrete~~ first control ~~gates~~ gate and the semiconductive stripe ~~respectively~~, and between the second control gate and the semiconductive stripe;
~~two~~ a first dielectric layer ~~layers~~, disposed between the ~~two~~ charge trapping layer ~~layers~~ and the semiconductive stripe ~~respectively~~; and
~~two~~ a second dielectric layer ~~layers~~, disposed between the ~~two~~ charge trapping layer ~~layers~~ and the ~~two-discrete~~ first control ~~gates-respectively~~ gate, and between the charge trapping layer and the second control gate.

16. (original) The multi-level memory cell of claim 15, wherein the semiconductive stripe comprises silicon.

17. (currently amended) The multi-level memory cell of claim 15, wherein the ~~two~~ charge trapping layer ~~layers~~ comprises a silicon nitride layer ~~layers~~.

18. (currently amended) The multi-level memory cell of claim 15, wherein the ~~two~~ first dielectric layer ~~layers~~ comprises a silicon oxide layer ~~layers~~.

19. (currently amended) The multi-level memory cell of claim 15, wherein the ~~two~~ second dielectric layer ~~layers~~ comprises a silicon oxide layer ~~layers~~.